

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) In a system comprising a first embedded device designated as a current controlling device and a second embedded device among a plurality of embedded devices, the current controlling device configured to permit transmission on a communications link and configured to control a handoff of permission to transmit on the communications link, a method comprising:

transmitting a first request from the second embedded device to the current controlling device, the first request indicative of the second embedded device requesting permission to transmit data on the communications link, the first request initiating the handoff that transfers control from the current controlling device to the second embedded device to permit transmission on the communications link; and

receiving, by the second embedded device from the current controlling device, permission to transmit on the communications link and control of the handoff of permission to transmit on the communications link based on the first request₁[[,]]

wherein, after receiving permission from the current controlling device, the second embedded device is designated as a new current controlling device, the new current controlling device is operable to receive a second request for a handoff from another embedded device of the plurality of embedded devices and to decide whether to grant the second request.

2. (Previously Presented) The method of claim 1, wherein the first and the second requests to transmit data on the communications link are asserted by activating a link request pin.
3. (Previously Presented) The method of claim 1 further comprising determining an identity of the second embedded device and an identity of the another embedded device that asserted the first request and the second request, respectively, based on addressing one of the plurality of embedded devices and determining whether the addressed device has asserted a confirmation signal.
4. (Previously Presented) The method of claim 3, wherein the current controlling device and the new current controlling device address the plurality of embedded devices by a round-robin method.
5. (Previously Presented) The method of claim 3, wherein the confirmation signal is asserted by activating a wait pin, the wait pin being for data flow control, wherein activation of the wait pin indicates a stop of data acceptance.
6. – 7. (Cancelled)
8. (Previously Presented) The method of claim 1, wherein the plurality of embedded devices includes at least one baseband processor device.

9. (Previously Presented) The method of claim 1, wherein the plurality of embedded devices includes a general purpose processor device.
10. (Previously Presented) The method of claim 1, wherein the plurality of embedded devices is in a radio telephone.
11. (Previously Presented) The method of claim 1, wherein the current controlling device is operable to transmit data on the communications link while receiving the first request to transmit data on the communications link and the new current controlling device is operable to transmit data on the communications link when receiving the second request to transmit data on the communications link.
12. (Previously Presented) The method of claim 1, wherein the current controlling device is operable to determine whether to handoff permission to transmit data on the communications link to the second embedded device and the new current controlling device is operable to determine whether to handoff permission to transmit data on the communications link to the another embedded device.
13. (Previously Presented) A system comprising:
 - a first embedded device among a plurality of embedded devices, the first embedded device designated as a current controlling device;
 - a communications link coupling the current controlling device to a second embedded device among the plurality of embedded devices, wherein the current controlling device is

configured to permit transmission on the communications link and to control a handoff of permission to transmit data on the communications link; and

a link request pin electrically coupling the plurality of embedded devices, the second embedded device operable to request permission to transmit data on the communications link based on the transmission a first request to the current controlling device via an activation of the link request pin, the first request initiating the handoff that transfers control from the current controlling device to the second embedded device to permit transmission on the communications link,

wherein the second embedded device receives, from the current controlling device, permission to transmit on the communications link and control of the handoff of permission to transmit on the communications link based on the first request,

wherein the second embedded device, after receiving permission from the current controlling device, is designated as a new current controlling device, the new current controlling device is operable to receive a second request for a handoff from another embedded device of the plurality of embedded devices and to decide whether to grant the second request.

14. (Previously Presented) The system of claim 13, wherein the current controlling device and the new current controlling device are operable to determine which of the plurality of embedded devices is requesting permission to transmit data on the communications link.

15. (Previously Presented) The system of claim 13, wherein each of the plurality of embedded devices comprises a confirmation pin to confirm requests to transmit data on the communications link.

16. (Previously Presented) The system of claim 15, wherein the current controlling device and the new current controlling device are operable to address one of the plurality of embedded devices and determine whether the addressed embedded device has asserted the confirmation pin.

17. (Previously Presented) The system of claim 16, wherein the current controlling device and the new current controlling device are operable to address the plurality of embedded devices by a round-robin method.

18 - 19. (Cancelled)

20. (Previously Presented) The system of claim 13, wherein the plurality of embedded devices includes at least one baseband processor device.

21. (Previously Presented) The system of claim 13, wherein the plurality of embedded devices includes a general purpose processor device.

22. (Previously Presented) The system of claim 13, wherein the plurality of embedded devices is in a radio telephone.

23. (Previously Presented) The system of claim 13, wherein the current controlling device is operable to transmit data on the communications link while receiving the first request to transmit data on the communications link and the new current controlling device is operable

to transmit data on the communications link while receiving the second request to transmit data on the communications link.

24. (Previously Presented) The system of claim 23, wherein the current controlling device is operable to determine whether to handoff permission to transmit data on the communications link to the second embedded device and the new current controlling device is operable to determine whether to handoff permission to transmit data on the communications link to the another embedded device.

25. (Currently Amended) In a system comprising a first embedded device designated as a current controlling device and a second embedded device among a plurality of embedded devices, the current controlling device configured to permit transmission on a communications link and configured to control a handoff of permission to transmit on the communications link, a method comprising:

transmitting a first link request signal from the second embedded device to the current controlling device, the first link request signal indicative of the second embedded device requesting permission to transmit data on a communications link, the first link request signal initiating the handoff that transfers control from the current controlling device to the second embedded device to permit transmission on the communications link; and

receiving, by the second embedded device from the current controlling device, permission to transmit on the communications link and control of the handoff of permission to transmit on the communications link based on the first link request signal,[[,]]

wherein, after receiving permission from the current controlling device, the second embedded device is designated as a new current controlling device, the new current

controlling device is operable to receive a second link request signal for a handoff from another embedded device of the plurality of embedded devices and to decide whether to grant the second link request.

26. (Cancelled)

27. (Previously Presented) The method of claim 25 further comprising performing an arbitration to determine an identity of the second embedded device that asserted the first link request signal wherein the arbitration comprises addressing the plurality of embedded devices by a round-robin method.

28. (Previously Presented) The method of claim 1, wherein the communications link accommodates a data rate of at least one hundred megabits per second.

29. (Previously Presented) The system of claim 20, wherein the at least one baseband processor device comprises a CDMA processor, WCDMA processor, Bluetooth processor, or IEEE 802.11 processor.

30. (Previously Presented) A system comprising:

first embedded processing means among a plurality of embedded processing means for processing data, the first embedded processing means designated as a current controlling means;

second embedded processing means of the plurality of embedded processing means;

and

communications means, coupling the plurality of embedded processing means, for transmitting data wherein the current controlling means permits transmission on the communication means and controls a handoff of permission to transmit data on the communications means,

wherein the second embedded processing means is operable to request permission to transmit data on the communication means based on the transmission of a first request to the current controlling means, the first request initiating the handoff that transfers control from the current controlling means to the second embedded processing means to permit transmission on the communications means,

wherein the second embedded means receives from the current controlling means permission to transmit on the communications means and control of the handoff of permission to transmit on the communication means based on the first request, and

wherein the second embedded processing means, after receiving permission from the current controlling means, is designated as new current controlling means for receiving a second request for a handoff from another embedded processing means of the plurality of embedded processing means and for deciding whether to grant the second request.

31. (Previously Presented) The system of claim 30, wherein the current controlling means and the new current controlling means are operable to determine which of the plurality of embedded processing means is requesting permission to transmit data on the communications means.

32. (Previously Presented) The system of claim 30, wherein each of the plurality of embedded processing means comprises confirmation means for confirming requests to transmit data on the communications means.

33. (Previously Presented) The system of claim 32, wherein the current controlling means and the new current controlling means are operable to address one of the plurality of embedded processing means and determine whether the addressed embedded processing means has asserted the confirmation means.

34. (Previously Presented) The system of claim 33, wherein the current controlling means and the new current controlling means are operable to address the plurality of embedded processing means by a round-robin method.

35. (Cancelled)

36. (Previously Presented) The system of claim 30, wherein the plurality of embedded processing means includes at least one baseband processing means.

37. (Previously Presented) The system of claim 30, wherein the plurality of embedded processing means includes at least one general purpose processing means.

38. (Previously Presented) The system of claim 30, wherein the plurality of embedded processing means is in a radio telephone.

39. (Previously Presented) The system of claim 30, wherein the current controlling means is operable to transmit data on the communications means while receiving the first request to transmit data on the communications means and the new current controlling means is operable to transmit data on the communications means while receiving the second request to transmit data on the communications means.

40. (Previously Presented) The system of claim 30, wherein the current controlling means is operable to determine whether to handoff permission to transmit data on the communications means to the second embedded processing means and the new current controlling means is operable to determine whether to handoff permission to transmit data on the communications means to the another embedded processing means.

41. (Previously Presented) In a system comprising a first embedded device designated as a current controlling device and a second embedded device among a plurality of embedded devices, the current controlling device configured to permit transmission on the communications link and configured to control a handoff of permission to transmit on the communications link, a method comprising:

receiving a first request at the current controlling device from the second embedded device, the first request indicative of the second embedded device requesting permission to transmit data on the communications link, the first request initiating the handoff that transfers control from the current controlling device to the second embedded device to permit transmission on the communications link; and

transmitting, from the current controlling device to the second embedded device, permission to transmit on the communications link and control of the handoff of permission to transmit on the communications link based on the first request,

wherein, after receiving permission from the current controlling device, the second embedded device is designated as a new current controlling device, the new current controlling device is operable to receive a second request for a handoff from another embedded device of the plurality of embedded devices and to decide whether to grant the second request.

42. (Previously Presented) The method of claim 41, wherein the first and second requests to transmit data on the communications link are asserted by activating a link request pin.

43. (Previously Presented) The method of claim 41 further comprising determining an identity of the second embedded device and an identity of the another embedded device that asserted the first request and the second request, respectively, based on addressing one of the plurality of embedded devices and determining whether the addressed device asserted a confirmation signal.

44. (Previously Presented) The method of claim 43, wherein the current controlling device and the new current controlling device address the plurality of embedded devices by a round-robin method.

45. (Previously Presented) The method of claim 43, wherein the confirmation signal is asserted by activating a wait pin.

46. – 48. (Cancelled)

49. (Previously Presented) The method of claim 41, wherein permission to transmit data on the communications link includes an ability to exclusively transmit data on the communications link.

50. (Previously Presented) A system comprising:

a first embedded device among a plurality of embedded devices, the first embedded device designated as a current controlling device that is configured to permit transmission on a communications link and to control a handoff of permission to transmit on the communications link;

a link request pin electrically coupling the plurality of embedded devices wherein a second embedded device of the plurality of embedded devices operable to request permission to transmit data on the communications link based on the transmission of a first request to the current controlling device via an activation of the link request pin, the first request initiating the handoff that transfers control from the current controlling device to the second embedded device to permit transmission on the communications link,

wherein the second embedded device receives, from the current controlling device, permission to transmit on the communications link and control of the handoff of permission to transmit on the communications link based on the first request,

wherein the second embedded device, after receiving permission from the current controlling device, is designated as a new current controlling device, the new current controlling device is operable to receive a second request for a handoff from another

embedded device of the plurality of embedded devices and to decide whether to grant to the second request.

51. (Previously Presented) The system of claim 50, wherein each of the plurality of embedded devices comprises a confirmation pin to confirm requests to control the communications link.

52. (Previously Presented) The system of claim 51, wherein the current controlling device and the new current controlling device are operable to address one of the plurality of embedded devices and determine whether the addressed embedded device has asserted the confirmation pin.

53. – 54. (Cancelled)

55. (Previously Presented) The system of claim 50, wherein permission to transmit data on the communications link includes an ability to exclusively transmit data on the communications link.

56. (Previously Presented) In a system comprising a first embedded device designated as a current controlling device and a second embedded device among a plurality of embedded devices, the current controlling device configured to permit transmission on a communications link and configured to control a handoff of permission to transmit on the communications link, a method comprising:

receiving a first link request signal at the current controlling device from the second embedded device, the first link request signal indicative of the second embedded device requesting permission to transmit data on the communications link, the first link request signal initiating the handoff that transfers control from the current controlling device to the second embedded device to permit transmission on the communications link;

receiving a confirmation signal at the current controlling device from the second embedded device, thereby confirming that the second embedded device initiated the first link request signal; and

transferring, from the current controlling device to the second embedded device, permission to transmit on the communications link and control of the handoff of permission to transmit on the communications link,

wherein, after receiving permission from the current controlling device, the second embedded device is designated as a new current controlling device, the new current controlling device is operable to receive a second link request signal for a handoff from another embedded device of the plurality of embedded devices and to decide whether to grant the second request.

57. – 59. (Cancelled)

60. (Previously Presented) The method of claim 56, wherein permission to transmit data on the communications link includes an ability to exclusively transmit data on the communications link.

61. (Previously Presented) The method of claim 56 further comprising performing an arbitration to determine which one of the plurality of embedded devices initiated the link request signal, the arbitration comprising addressing the plurality of embedded devices by a round-robin method.

62. (Previously Presented) A system comprising:

first embedded processing means among a plurality of embedded processing means for processing data, the first embedded processing means designated as current controlling means for permitting transmission on communication means for coupling the plurality of embedded processing means and for controlling a handoff of permission to transmit on the communications means; and

second embedded processing means of the plurality of embedded processing means,

wherein the second embedded processing means is operable to request permission to transmit data on the communication means based on the transmission of a first request to the current controlling means, the first request initiating the handoff that transfers control from the current controlling means to the second embedded processing means to permit transmission on the communications means,

wherein the second embedded processing means receives from the current controlling means permission to transmit on the communications means and control of the handoff of permission to transmit on the communication means based on the first request,

wherein the second embedded processing means, after receiving permission from the current controlling means, is designated as new current controlling means for receiving a second request for a handoff from another embedded processing means of the plurality of embedded processing means and for deciding whether to grant the second request.

63. (Previously Presented) The system of claim 62, wherein each of the plurality of embedded processing means comprises confirmation means for confirming a request for permission to transmit data on the communications means.

64. (Previously Presented) The system of claim 63, wherein the current controlling means and the new current controlling means are operable to address one of the plurality of embedded processing means and determine whether the addressed embedded processing means has asserted the confirmation means.

65. – 66. (Cancelled)

67. (Previously Presented) The system of claim 62, wherein permission to transmit data on the communications means includes an ability to exclusively transmit data on the communications means.